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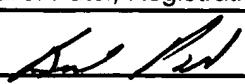
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| | | Application Number | 10/687,389 |
| | | Filing Date | October 15, 2003 |
| | | First Named Inventor | Ivan Osorio |
| | | Art Unit | 3736 |
| | | Examiner Name | TBD |
| Total Number of Pages in This Submission | | Attorney Docket Number | 011738.00139 |

ENCLOSURES (check all that apply)

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| | | |
|-------------------------------|---|--|
| Firm or Individual name | Banner & Witcoff, Ltd. Binal J. Patel, Registration No. 42,065 | |
| Signature |  | |
| Date | November 23, 2004 | |

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By:  _____

Application of: Osorio, et al.

Application No.: 10/687,389

Filing Date: October 15, 2003

Title: Scoring Of Sensed Neurological Signals For Use With A Medical Device System

Transmitted herewith are the following documents:

- Transmittal Form (1 page) in duplicate
- Information Disclosure Statement, 1 page
- Information Disclosure Statement by Applicant PTO/SB/08a, 4 pages, with article references attached
- Return Receipt Postcard

Attorney Case No.: 011738.00139



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Attorney Docket No. 011738.00139)

In re U.S. Patent Application of :)
Osorio et al.)
Application No. 10/687,389) Examiner: TBD
Filed: October 15, 2003) Art Unit: 3736
For: Scoring of Sensed Neurological)
Signals For Use With A Medical)
Device System)

INFORMATION DISCLOSURE STATEMENT

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Pursuant to 37 C.F.R. Section 1.97-1.98, Applicants wish to make the following references listed on the enclosed Forms PTO/SB/08A and PTO/SB/08B of record in the above-identified application. This Information Disclosure Statement is in compliance with the continuing duty of candor as set forth in 37 C.F.R. Section 1.56.

Applicants believe no fees are due in connection with the filing of this Information Disclosure Statement. However, the Commissioner is hereby authorized to charge any fees that may be due or credit any overpayment of fees to our Deposit Account No. 19-0733.

Respectfully submitted,

BANNER & WITCOFF, LTD.

Dated: Nov 23, 2004

By: Binal Patel
Binal Patel
Reg. No. 42,065

Banner & Witcoff
10 South Wacker Dr.
Suite 3000
Chicago, IL 60606
(312) 463-5000 - phone
(312) 463-5001 - fax

NOV 23 2004

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INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet

1

of 4

Complete if Known

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|----------------------|------------------|
| Application Number | 10/687,389 |
| Filing Date | October 15, 2003 |
| First Named Inventor | Ivan Osorio |
| Art Unit | 3736 |
| Examiner Name | TBD |

Attorney Docket Number 011738.00139

U.S. PATENT DOCUMENTS

| Examiner Initials * | Cite No. ¹ | Document Number | Issue/Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|---------------------|-----------------------|--|--------------------------------------|--|---|
| | | Number - Kind Code ² (if known) | | | |
| | | US- 3522811 | 08/04/1970 | Schwartz et al. | |
| | | US- 3850161 | 11/26/1974 | Saul Liss | |
| | | US- 3863625 | 02/04/1975 | Viglione et al. | |
| | | US- 3967616 | 07/06/1976 | Sidney A. Ross | |
| | | US- 3993046 | 11/23/1976 | Fernandez et al. | |
| | | US- 4019518 | 04/26/1977 | Maurer et al. | |
| | | US- 4038536 | 07/26/1977 | Paul L. Feintuch | |
| | | US- 4295474 | 10/20/1981 | Robert E. Fischell | |
| | | US- 4373527 | 2/15/1983 | Robert E. Fischell | |
| | | US- 4417592 | 11/29/1983 | John E. Roy | |
| | | US- 4566464 | 01/28/1986 | Piconne et al. | |
| | | US- 4581758 | 04/08/1986 | Coker et al. | |
| | | US- 4610259 | 09/09/1986 | Cohen et al. | |
| | | US- 4702254 | 10/27/1987 | Jacob Zabara | |
| | | US- 4944299 | 07/31/1990 | Sergiu Sulvian | |
| | | US- 5311869 | 05/19/1992 | Nappholz et al. | |
| | | US- 5269303 | 12/14/1993 | Wernicke et al. | |
| | | US- 5299569 | 04/05/1994 | Wernicke et al. | |
| | | US- 5311876 | 05/17/1994 | Olsen et al. | |
| | | US- 5335657 | 08/09/1994 | Terry Jr. et al. | |
| | | US- 6473639 | 10/24/2002 | Fischell et al. | |
| | | US- 6480743 | 11/12/2002 | Kirkpatrick et al. | |
| | | US- 6560486 | 05/06/2003 | Osorio et al. | |
| | | US- 6591138 | 07/08/2003 | Fischell et al. | |
| | | US- 6597954 | 07/22/03 | Pless et al. | |
| | | US- 6647296 | 11/11/2003 | Fischell et al. | |
| | | US- 2002/0013614 | 01/31/2002 | David L. Thompson | |

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| INFORMATION DISCLOSURE STATEMENT BY APPLICANT | | Application Number | 10/687,389 |
| (Use as many sheets as necessary) | | Filing Date | October 15, 2003 |
| | | First Named Inventor | Ivan Osorio |
| | | Art Unit | 3736 |
| | | Examiner Name | TBD |
| Sheet | 3 | of | 4 |
| | | Attorney Docket Number | 011738.00139 |

| NON PATENT LITERATURE DOCUMENTS | | | | |
|---------------------------------|-----------------------|---|--|----------------|
| Examiner Initials * | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | | T ² |
| | | Alan V. Oppenheim & Ronald W. Schafer, Digital Signal Processing, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, pg. 18-24, 1975. | | |
| | | Gotman J., & Gloor, P., "Automatic Recognition and Quantification of Linterictal Epileptic Activity in the Human Scalp EEG", Electroencephalography and Clinical Neurophysiology, 41:513-529, 1976. | | |
| | | B. Litt and J. Echauz, "Prediction of Epileptic Seizures", 1 The Lancet Neurology 22 May 2002. | | |
| | | H. Qu & J. Gotman, "A Seizure Warning System For Long-term Epilepsy Monitoring", 45 Neurology 2250, 1995. | | |
| | | J. Gotman, "Automatic Recognition of Epileptic Seizures in the EEG", 54 Electroencephalography and Clinical Neurophysiology at 530-540, 1982. | | |
| | | Lapkin et al., "The Electroencephalogram in Childhood Basilar Artery Migraine", 27Neurology 580-583, June 1977. | | |
| | | Murro et al., "Computerized Seizure Detection of Complex Partial Seizures", 79 Electroencephalography and Clinical Neurophysiology 330-333, 1991. | | |
| | | P. Rajna and C. Lona, "Sensory Stimulation for Inhibition of Epileptic Seizures", 30(2) Epilepsia 168-174, 1989. | | |
| | | R.P. Lesser et al., "Brief Bursts of Pulse Stimulation Terminate Afterdischarges Caused by Cortical Stimulation", Neurology 53, December 1999. | | |
| | | Webber, W.R.S. et al., "Automatic EEG Spike Detection: What Should the Computer Imitate", 87 Electroencephalography and Clinical Neurophysiology 330-333, 1993. | | |
| | | Grassberger, Peter et al., "Characterization of Strange Attractors" Vol. 50, No.5., The American Physical Society , January 31, 1983. | | |

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|--------------------|--|-----------------|
| Examiner Signature | | Date Considered |
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| | | | | Art Unit | 3736 |
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| Examiner Initials * | Cite No. ¹ | Document Number | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | Number - Kind Code ² (if known) | | | |
| | | US- 5487754 | 01/30/1996 | Snell et al. | |
| | | US- 5626145 | 05/06/1997 | Clapp et al. | |
| | | US- 5683422 | 11/04/1997 | Mark T. Rise | |
| | | US- 5713922 | 02/03/1998 | Gary William King | |
| | | US- 5713923 | 02/03/1998 | Ward et al. | |
| | | US- 5716377 | 02/10/1998 | Rise et al. | |
| | | US- 5720770 | 02/24/1998 | Nappholz et al. | |
| | | US- 5743860 | 04/28/1998 | Hively et al. | |
| | | US- 5752976 | 05/19/1998 | Duffin et al. | |
| | | US- 5792186 | 08/11/1998 | Mark T. Rise | |
| | | US- 5978702 | 11/02/1999 | Ward et al. | |
| | | US- 5995868 | 11/30/1999 | Dorfmeister et al. | |
| | | US- 6016449 | 01/18/2000 | Fischell et al. | |
| | | US- 6018682 | 01/25/2000 | Mark T. Rise | |
| | | US- 6066163 | 05/23/2000 | Michael Sasha John | |
| | | US- 6083248 | 07/04/2000 | David L. Thompson | |
| | | US- 6094598 | 7/25/2000 | Elsberry et al. | |
| | | US- 6117066 | 09/12/2000 | Abrams et al. | |
| | | US- 6128537 | 10/03/2000 | Mark T. Rise | |
| | | US- 6128538 | 10/03/2000 | Fischell et al. | |
| | | US- 6134474 | 10/17/2000 | Fischell et al. | |
| | | US-6200265 | 03/13/2001 | Walsh et al. | |
| | | US- 6224549 | 05/01/2001 | Win Van Drongelen | |
| | | US- 6227203 | 05/08/2001 | Rise et al. | |
| | | US- 6230049 | 05/08/2001 | Fischell et al. | |
| | | US- 6337997 | 01/08/2002 | Mark T. Rise | |
| | | US- 6341236 | 01/22/2002 | Osorio et al. | |
| | | US- 6353754 | 03/05/2002 | Fischell et al. | |
| | | US- 6356784 | 03/12/2002 | Lozano et al. | |
| | | US- 6360122 | 03/19/2002 | Fischell et al. | |
| | | US- 6366813 | 04/02/2002 | Daniel J. Di Lorenzo | |
| | | US- 6374140 | 04/16/2002 | Mark T. Rise | |
| | | US- 6427086 | 07/30/2002 | Fischell et al. | |
| | | US- 6459936 | 10/01/2002 | Fischell et al. | |
| | | US- 6466822 | 10/15/2002 | Benjamin D. Pless | |
| | | US- 6473639 | 10/24/2002 | Fischell et al. | |

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|---------------------|-----------------------|---|----------------|
| | | Iasemidis, L. D. and Sackellares, J. C. "Chaos Theory and Epilepsy". The Neuroscientist, 2:118--126, 1996. <retrieved from http://citeseer.ist.psu.edu/iasemidis96chaos.html > | |
| | | Elger, Christian E., et al., "Short Communication: Seizure Prediction By Non-Linear Time Series Analysis of Brain Electrical Activity" European Journal of Neuroscience, Vol. 10, pgs. 786-789 (1998) | |
| | | Gotman, J., "Seizure Recognition and Analysis", Montreal Neurological Institute and Deartment of Neurology and Neurosurgery, McGill University, Montreal, Quebec. H3A 2B4 (Canada) | |
| | | Vachtsevanos, G.J., et al. "Neuro-Fuzzy Approaches to Decision Making: A Comparative Study With An Application to Check Authorization" Journal of Intelligent and Fuzzy Systems, Vol. 6, pgs. 259-278 (1998) | |
| | | Osorio, Ivan, et al., "Real-Time Automated Detection and Quantitative Analysis of Seizures and Short-Term Prediction of Clinical Onset" Epilepsia, Vol. 39(6) pgs. 615-627, (1998) | |
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